[CLAIMS]

1. A method for preparing high purity carbon nanotubes in which the carbon nanotubes are prepared by the recombination of carbons generated from a carbon source such as solid carbon, graphite or a hydrocarbon in the presence or absence of a catalyst, the method being characterized in adding water into the reaction system or making water exist in the reaction system.

2. The method according to claim 1, characterized in that water is supplied into the reaction system with the carbon source or separately.

3. The method according to claim 1, characterized in that water is present in an amount of 1 to 2000 wt% based on the total weight of the carbon source.

4. The method according to claim 1, characterized in that the catalyst is at least one metal selected from the group consisting of transition metal, noble metal, alkali metal and alkali earth metal.

5. The method according to claim 1, characterized in that the graphite as a carbon source is vaporized by arc-discharge or laser ablation.

6. The method according to claim 1, characterized in that the hydrocarbon as a carbon source is supplied in gas phase.

7. The method according to claim 1, characterized in that the catalyst is supplied continuously or intermittently in the form of nanoparticles or a colloid solution thereof.

8. The method according to claim 7, characterized in that the colloid solution is a solution of the catalyst nanoparticles which are dispersed in a solvent selected from the group consisting of water, a nonpolar organic solvent, such as aromatic

organic solvent such as benzene, toluene or xylene, or an aliphatic organic solvent such as hexane, heptane or octane, a polar organic solvent such as ethanol or propyl alcohol, and a mixture thereof in the presence of a surfactant.

9. The method according to claim 7 or 8, characterized in that the catalyst in the form of nanoparticles is selected from the group consisting of metal element, oxides, nitride, borides, fluorides, bromides and sulfides of metal, and a mixture thereof.

10. The method according to claim 1 or 7, characterized in that water is added in the form of water-in-oil or oil-in-water emulsion with the hydrocarbon used as a carbon source in the presence of a surfactant.

11. The method according to claim 10, characterized in that the water-in-oil or oil-in-water emulsion comprises the catalyst nanoparticles which are dispersed in the emulsion medium or encapsulated inside particles of the water-in-oil or oil-in-water emulsion.

12. The method according to claim 10, characterized in that the surfactant is selected from the group consisting of hydrocarbon-, silicon- and fluorocarbon-based surfactants being cationic, anionic, nonionic or amphoteric .

13. The method according to claim 1, characterized in that the carbon source is selected from the group consisting of said solvents, said surfactants, carbon monoxide, saturated or unsaturated aliphatic hydrocarbons having 1 to 6 carbon atoms, and aromatic hydrocarbons having 6 to 10 carbon atoms; and said carbon source can have 1 to 3 heteroatoms selected from the group consisting of oxygen, nitrogen, chlorine, fluorine and sulfur.

14. The method according to claim 13, characterized in that the hydrocarbon is selected from the group consisting of aromatic hydrocarbons such as benzene, toluene or xylene, aliphatic hydrocarbons such as hexane, heptane or octane, alcohols such as methanol, ethanol or propyl alcohol, ketones such as acetone, and a mixture thereof.

15. The method according to claim 1, characterized in that an optional reaction gas selected from H_2, H_2S and NH_3 is supplied.